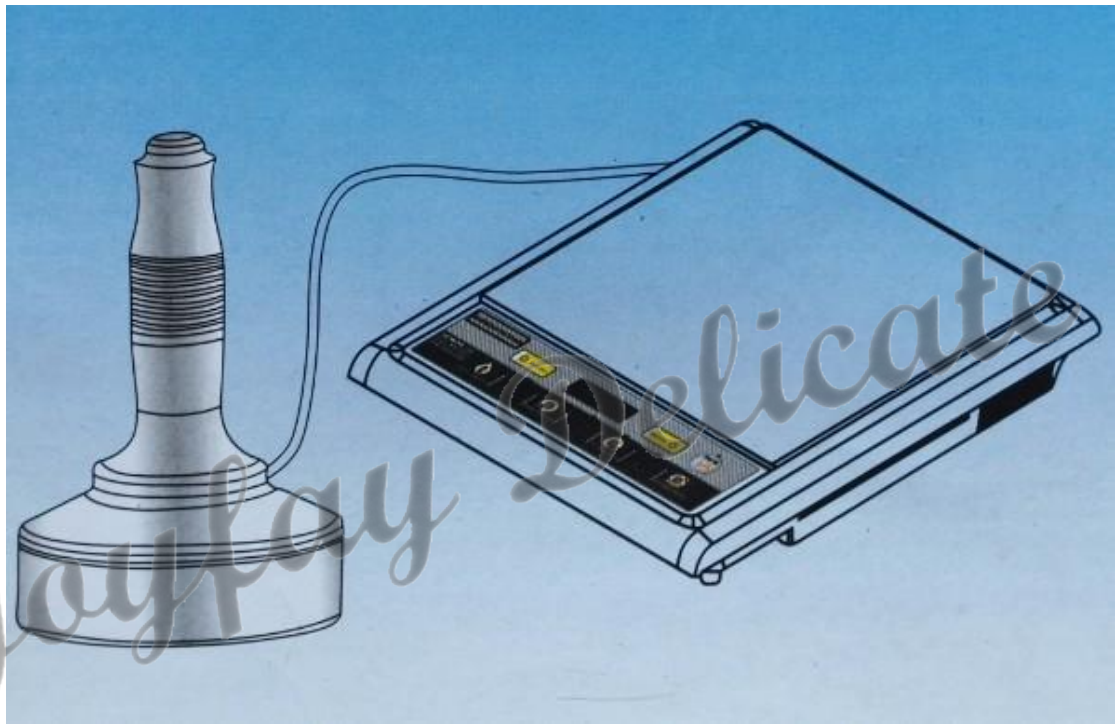
User Manual

Handheld Electromagnetic Induction Sealing

GLF-500F



Please use the machine according to this manual

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1. General

1.1 Scope of Application

GLF-500F microcomputer-based electromagnetic induction sealing machine is used to seal the plastic, glass or non-metallic bottle and cup-shaped container based on electromagnetic induction principle. It shall not be used to seal metallic container. This machine is widely used in medical industry, chemical industry, food, beverage, grease, cosmetics and other industries, and the induced heating seal is advantaged no matter for improving level of product, preventing moisture absorption, prolonging guarantee period and reinforcing anti-fake performance or for improving sealing speed and quality.

Please contact the manufacturer for any other purpose, and the manufacturer is not responsible for maintenance for the product damaged due to improper operation, which shall be borne by user independently.

The machine shall be used strictly according to this manual.

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1.2 Technical Parameter

Power Supply: 110 V
Power: 0.8kW-1.2kW (adjustable)
Static current: <0.1 A
Maximum allowable supply current: <6A
Operating frequency: 30 KHz (±5%)
Sealing dia.: 020-0100 (mm)
Maximum ambient temperature: 45 □ (113 □)
Relative humidity (RH): <80%
Standard: GB 4706 11998 Carton size: 490x320x135 (mm)
Weight of whole unit: 2.7kg

1.3 Feature

1. Automatic counting function, effective sealing quantity control.
2. Reasonable structure sign, simple touch screen operation.
3. Automatic overheating, overvoltage, over current protection

function.

4. Super wised voltage range.

5. Stable performance and long service life.

6. Automatic power-off function, the machine will shut down automatically for no operation within 15min.

1. Precaution

1.1 Safety Warning

It may cause severe personal injury and property loss in case of non compliance of safety warning and precaution, operator with qualified certificate must be familiar with all the safety warnings and precautions in this manual. Correct transportation, fixing and careful test run are key to guarantee safe operation and prevent fault. Following warnings have made special tips for relevant operation process. Relevant sign is indicated by each warning.

1.2 Use Condition

The maximum ambient temperature shall not exceed 45 ℃ and relevant humidity shall not exceed 80%, the machine shall be used in ventilated place, induction power supply bottom and heat dissipation hole at the side and sensor head shall be clean and not blocked. Over temperature or humidity have great influence over service life of electronic component, which may even directly cause the machine to damage.

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1.3 Maintenance

Nonprofessional is not allowed to dismount the machine as there's high current inside, the maintenance shall be carried out by qualified professional, precautions for maintenance must be complied with strictly during maintenance, or it won't ensure safe operation of machine.

3. Operation Guide

3.1 Starting up

Plug the power plug in, push "power" button to start the machine, the nixie tube will display default setting time, which is "1.5S", the LED is located in the middle, and the default power is 1000W**.**

3.2 Adjustment

3.2.1 Power Adjustment

Push “Reduce Power” or “Increase Power” button to adjust the power, and its 800W, 900W, 1000W, 1100W, 1200W from right to left (LED arrangement). If the sealing diameter is less than 30mm, the power can be set at “High” to improve sealing speed; while the sealing diameter is more than 60mm, the power can be set as “Low” to get better sealing quality.

3.2.2 Time Adjustment

Push the “Seal Time” at the left or right to respectively adjust the sealing time at unit’s and ten’s place, the unit’s place is adjusted circularly from 0 to 5 and the ten’s place is adjusted circularly from 0-9, that means the time adjustment range is 0.1-5.9 (s).

3.3 Trial Sealing

Put the bottle with induction film (the face with foil shall be aligned to bottle top) under the center of sensor head, push the button on top of sensor head, the sealing time on panel counts down and send “beep” sound (sending once respectively at beginning and end) until to 0, and the sealing finishes when it displays the count again.

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3.3.1 Qualified Seal

Open the bottle cap and check the seal situation, it means the seal is qualified if the seal is smooth and tight and, the gasket is fully separated, and the film is fully adhered to bottle.

3.3.2 Insufficient Pressure

If the seal is adhered partially, maybe the cap is not tight and the film is not fully pressed on the top of bottle, place the film and try again.

3.3.3 Inadequate Time

If the film is separated when it’s pulled lightly by hand or the gasket is not separated with film even though it seems very firm, maybe the sealing time is insufficient or the film is not matched with bottle’s material, just adjust the sealing time or change for induction film of different material.

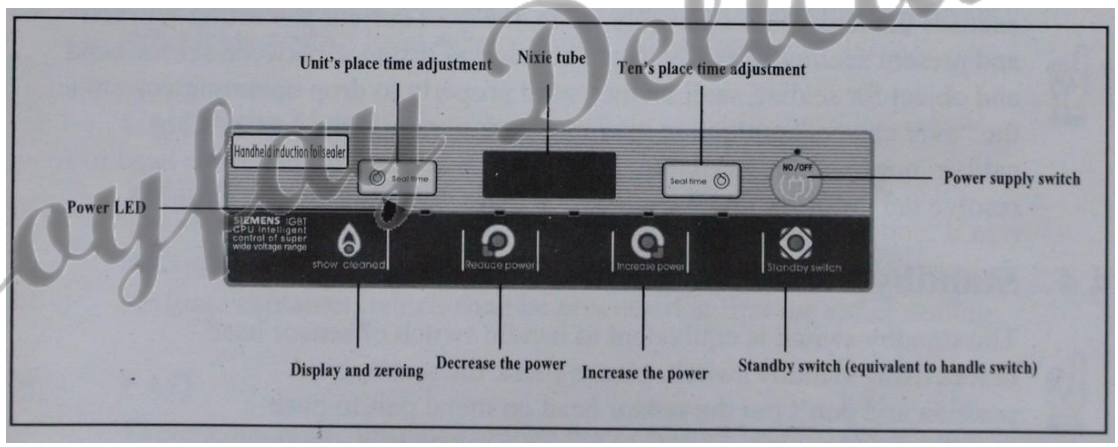
3.3.4 Too Long Sealing Time

If the film crumples up and bottle is obviously melted, it means the sealing time is too long and it shall be reduced properly.

3.3.5 Start to Work

Until it completely complies with requirement, the sealing work can start. Sealing time shall be readjusted when using bottles and films of different lots. Push "Show" button to check time, and the counter will return to zero when pushing "Show" button for 2s. The machine will automatically shut down if it's idle (including handle button) for 15 minutes. The data of current operation is default for next startup in case that the power plug is not pulled out, including power, sealing time, counting.

3.4 Operation Panel Schematic Diagram



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3.5 Fault Code

E2: Overvoltage

E1: Under Voltage

4. Precaution

4.1 Operating Power Supply

The machine owns automatic protection when the input voltage is too high (140V), it's unavailable for sealing work, and it displays fault B code E2. The machine owns automatic protection when the input voltage is too low (70V), it's unavailable for sealing work, and it displays fault code El.

4.2 System Temperature

The overheat protection will start automatically to stop the induction output when the system temperature is too high, and the sealing work can continue until the temperature drops (don't switch off the power supply).

4.3 Over Current Protection

When it displays "over current" fault code, it means that the output current exceeds the maximum allowable value, the over current protection will start and present sealing is ineffective. The interval distance between sensor head and object for sealing shall be increased properly to drop operating current (the "over current" protection may not work normally for bottle of big caliber, non-metallic insulation plate shall be adhered to the sensor head to resolve the problem, and the insulation plate shall be provided by user).

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4.4 Standby Switch

The standby switch is equivalent to handle switch of sensor head, before using standby switch, please check the sensor head position and don't put die sensor head on metal part to push standby switch.

4.5 Alignment

During sealing work, the object for sealing shall be aligned to the center of sensor head, so as to ensure seating quality.

4.6 Sealing Material

Polymer on sealing film shall be adhered to the object for sealing tightly and firmly.

4.7 Ventilation

The machine shall be used in ventilated place without block at air inlet.

4.8 Foreign Substance

No foreign substance is allowed to fall in the machine, otherwise, it may cause fault.

4.9 Abnormity

If there's abnormity, such as the coil is burnt abnormally, happening during operation process, just ON-OFF button to stop the work, otherwise, it may easily cause personal injury.

4.10 Unpacking

After unpacking, check whether the case is obviously collision. Check whether the attached accessory is well-equipped according to packing list, please contact local agency within 7 days for any problem.

5. Container Material

The material of packaging container may be PE, PP, PET, PS, ABS, and plastic container with plastic screw cap is easiest for sealing. It may be complex for other situations. The induction sealing can also be used for glass container, which shall be processed at first for easier sealing.

6. FAQ

There's one bottle unsealed among ten or twenty bottles. What's the matter with sealing machine?

High quality sealing effect is determined by consistency of the technological process. Indirect function may have influence on sealing effect. In order to get proper sealing, the foil shall be fully touched with the container under action of torque. The sealing material shall be matched with container material, and shall be fully exposed in the magnetic field so that the foil can be sealed after heating up. Error in any link may cause poor quality or infirm sealing. The sensor head is easy to make mistake.

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Infirm sealing is mainly caused by insufficient pressure, so that he foil can't fully touch with bottle top, or it's maybe caused by insufficient exposure to magnetic field. Unmatched material problem also happens often, it's probably caused by cap or container provided by different suppliers or different lots of product provided by the same supplier.

Why the bottle top sealed is loose?

The sealing gasket is composed of foil and polymer. In order to fix the foil in the bottle cap, wax is used as adhesive to fix it usually. The foil heating up owns dual function. The melted polymer enables the foil to adhere to the packaging container, and the wax is melted to make the foil separated with card board. The melted wax is absorbed by the cardboard and the foil is adhered to the bottle top. Although the was is thin,, there's still space after it's melted and absorbed by cardboard, which makes the bottle top loose.

7. General Fault

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Phenomenon	Reason	Resolution
The power supply indicating lamp is not on when switching on power supply	The power plug is not plugged well	Plug in the power plug firmly
The machine has no response when pushing handle button	The button switch is damaged	Replace the switch
	The sensor head is damaged	Replace the sensor head
It's unavailable for sealing when the work signal is normal	Heating time is not enough	Prolong the heating time, and increase sealing power
	The induction film is not matched with container's material	Select matched induction film
	The induction coil is damaged	Replace the induction coil
The induction film crumples up, and the bottle top is melted after sealing	The heating time is too long	Shorten the heating time and decrease the sealing power
The gasket is not folly separated with film	The heating time is wrong	Adjust relevant heating time

8. **Packing List**

1. GLF-500F sealing machine	1 set
2. Test bottle	2 pcs
3. User Manual	1 copy

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